REMARKS/ARGUMENTS

Claims 1 through 24 remain pending in this application. No amendments have been made by way of this submission.

The applicant appreciates the withdrawal of all rejections and objections made by the Examiner in the previous Office Action dated November 13, 2003.

In the current Examiner's Report, the Examiner rejectec claims 1 through 24 of the present application pursuant to 35 USC 102(e) on the basis that they are anticipated by US patent application publication No. US2002/0049778A1 (Bell et al.). The applicant has carefully considered the Examiner's art-based rejection, but respectfully traverses the rejection for the following reasons.

The Bell et al. reference teaches a method and apparatus for providing information outsourcing. In particular, the Bell et al. reference is directed to providing enterprise sites with outsourced storage capability. The storage requirements of a particular enterprise site may be variable and may include static snapshot storage, primary storage, dynamic real-time mirroring, backup and disaster recovery, etc. To provide data storage solutions to enterprise sites (106), Bell et al. teach a system that includes one or more storage nodes (102). Each storage node (102) may include a plurality of data storage systems (108). The storage manager computer (112) controls the operation of a multiplexing switch (110) so as to route data between the data storage systems (108) and the enterprise sites (106).

Bell et al. also describe a global operation centre (104) intended to configure one or more storage nodes (102) to support any of a plurality of possible service level storage agreements with a number of enterprise sites (102). As described at paragraphs [0051]-[0053], the global operation centre monitors and controls the use of storage nodes (102) by enterprise sites (106). It tracks operation of the multiplexing switch (110) along with the each enterprise's usage of the data

storage system (108). The global operation centre (104) does not play a role in transferring data between the enterprise sites (106) and any of the storage nodes (102). Reference may be made to paragraphs [0051] to [0053].

Bell et al. also describe an embodiment wherein a storage node (102) provides backup storage services to supplement the primary storage located at an enterprise site computer (407). A backup agent process (432) executes on the enterprise site computer (407) and communicates with a backup server computer (116) over a backup network (444). The backup agent process (432) sends files stored at the enterprise site computer (407) over the backup network (444) for storage at the storage node (102) as part of a backup service level agreement. Reference may be made to paragraphs [0062] to [0068].

In her report, the Examiner states that the Bell et al. reference teaches the invention claimed in claims 1, 11, 18, and 22. In particular, the Examiner states that the Bell et al. reference describes a primary site and a remote site coupled by a communication link. The Examiner states that the primary site is the global operation centre, and the global operation centre is connected to regional operational centres having storage nodes, wherein the regional operation centres constitutes storage consumers. In support of her argument that the global operation centre is equivalent to a primary storage device, as claimed in the present application, the Examiner refers to paragraphs [0052]-[0053] of the Bell et al. reference. The applicant notes that these paragraphs describe the global operation centre as performing a monitoring and oversight function to ensure conformance and implementation of service level storage agreements between enterprise sites and the storage system. The Examiner appears to equate the regional operation centres with the storage consumers referred to in the claims of the present application. In describing the Bell et al. reference as teaching a remote site having a remote controller and a remote storage device, the Examiner refers to paragraphs [0059]-[0060]. These paragraphs refer to Figure 3. It is difficult to reconcile this reference with the Examiner's earlier

references to the global operation centre and the regional operational centre and the description at paragraphs [0052]-[0053]. Accordingly, the applicant has encountered some difficulty in understanding what components of the Bell et al. system the Examiner considers to constitute the claimed elements of the present application.

To the extent the Examiner suggests that the global operation centre taught by Bell et al. may be equated with the primary site claimed in the present application, the applicant notes that nowhere does Bell et al. suggest that the global operation centre acts as a primary site coupled to a storage consumer in order to receive data from the storage consumer and store data received from the storage consumer in a storage device and to then transmit the data to a remote site over a communication link for storage at the remote site. The global operation centre acts in an oversight or monitoring role. It is not an active participant in the receipt and storage of data from enterprise sites.

To the extent the Examiner is basing her rejection upon paragraphs [0059]-[0060] and Figure 3 of the Bell et al. reference, the applicant notes that the reference teaches that an enterprise site computer (307a) located at the enterprise site (306) may be connected to a storage node (102a). The storage node (102a) contains a data storage system (308a), which provides storage to the enterprise site computer (307a). Figure 3 also depicts a storage node (102b), described as a standby data storage system (308b), whose contents mirror the contents of the primary data storage system (308a). Accordingly, the Bell et al. reference describes data mirroring insofar as the data from data storage system (308a) is mirrored on data storage system (308b). No further description of the data mirroring operation is given. Certainly, nowhere does Bell et al. teach a communication link between storage node (102a) and storage node (102b) comprising a plurality of redundant communication paths. Nowhere does Bell et al. teach that storage node (102a) includes a primary controller operable to transmit a copy of data received from the enterprise site computer

(307) on each of the redundant communication paths to storage node (102b).

With respect to the statement in the claims of the present application that the communication link comprises a plurality of redundant communication paths, the Examiner refers to paragraphs [0059]-[0064] of Bell et al. This section of the Bell et al. reference describes a backup storage aspect of the Bell et al. system. This aspect of the Bell et al. system contemplates that a backup network (444) may be connected between the enterprise site computer (407) and the backup service computer (116) at the storage node (102). Nowhere does Bell et al. suggest a primary site and a remote site wherein a communication link between the primary and remote site comprises a plurality of redundant communication paths and a primary controller is operable to transmit a copy of data received from the storage consumer on each of the redundant communication paths.

To the extent that Bell et al. do describe dual redundant connections, at paragraph [0096], between enterprise site computers (207) and multiplexing switches (110), Bell et al. are clear that only one member of a pair is active at a time and that the other member of the pair is passive. The passive elements of the system only become active to replace previously active elements if they become disabled. Bell et al. nowhere suggest the transmission of data from a primary site to a secondary site via a communication link comprising a plurality of redundant communication paths, wherein the data is transmitted over each of the redundant communication paths.

Accordingly, in the applicant's respectful submission, the present invention, as defined in claims 1, 11, 18, and 22, is neither anticipated nor obvious in view of the Bell et al. reference and the applicant respectfully requests that the Examiner withdraw this rejection.

For the same reasons, dependent claims 2-10, 12-17, 19-21, 23, and 24 are also distinguishable over the cited reference.

In view of the foregoing amendments and submissions, the applicant respectfully requests the issuance of a timely Notice of Allowance. Should the Examiner have any questions with respect to these submissions, she is invited to telephone the applicant's agent, Fraser D. Rowand at (416) 868-1482.

Respectfully Submitted,
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